[ATSA.NEW] Ad-hoc ATS airspace - creation - decoding

Text NOTAM production rules

This section provides rules for the automated production of the text NOTAM message items, based on the AIXM 5.1 data encoding of the Event. Therefore, AIXM specific terms are used, such as names of features and properties, types of TimeSlices, etc:

- the abbreviation **ASE.BL.** indicates that the corresponding data item must be taken from the **Airspace BASELINE** that is created by the Event;

Several NOTAMs possible

Note that if an ad-hoc ATS area is located in the vicinity of one or more airports or affects more than one FIR, there are special provision in the OPADD (Ed. 4.0, section 2.3.9.2) with regard to the NOTAM that need to be issued in order to ensure that the NOTAM appear correctly in the relevant en-route and airport Pre-Flight Information Bulletins (PIB). From a Digital NOTAM point of view, this requires that an Event can have several NOTAM associated, which is supported by the AIXM Event schema. The Event has an explicit association to AirportHeliport as defined in ER-09.

1. if the Event has a concernedAirspace of type=FIR generate a NOTAM with scope W. If more of such Airspace feature(s) are identified, their identificator shall be listed in item A.
2. if the Event has a concernedAirspace to an Airspace of type CTR or TMA, identify the AirportHeliport feature(s) that are located in those CTR /TMA and that also have locationIndicatorICAO="YES"; according to the OPADD rules, propose that a single NOTAM with scope AW and additional NOTAM with scope A are issued for these airports;
3. if the Event has a concernedAirportHeliport to an AirportHeliport that have their ARP located within 5 NM (configurable parameter) and have locationIndicatorICAO="YES", propose that a single NOTAM with scope AW and additional NOTAM with scope A are issued for these airports

The rules for the "first NOTAM" are indicated below. For any additional NOTAM with scope A, refer to "several NOTAM possible" section.

Item A

The item A shall be generated according to the geographical location of the Airspace as follows:

- if no airport NOTAM are issued, then item A shall contain the Airspace.designator of the FIR(s) for which the NOTAM is issued;
- if one or more airports NOTAM are issued, then each such NOTAM shall contain the AirportHeliport.locationIndicatorCAO of the airports for which the NOTAM is issued.
  - if AirportHeliport.locationIndicatorICAO is empty, then CXXX or CCXX shall be used, where C/CC are the country code. In this case, the AirportHeliport.name shall be added at the beginning of item E (see OPADD Ed 4.0 paragraph 2.3.14). Note that this element does not appear in the item E pattern diagram further down.

Item Q

Apply the common NOTAM production rules for item Q, complemented by the following specific rules for this particular scenario:

Q code

The following mapping shall be used:

ASE.BL.type values	Corresponding Q codes
CTR	QACCA
ADIZ	QADCA
CTA	QAECA
UTA	QAHCA
OCA	QOACA
AWY	QARCA
TMA	QATCA
ADV	QAVCA
UDAV	QAVCA
ATZ	QAZCS
FIR	QAFCA
any other	QXXCA

Notes:

- *the operator shall have the possibility to change the Q code completely (for example, by using "XX").*

Scope

For each NOTAM that is generated:

- If Item A contains the designator of one (or more) FIR, insert E.
- If Item A contains the ICAO code of an airport, insert AE for the first such NOTAM and value A for the rest of the NOTAM.

Lower limit / Upper limit

Apply the common rules for {{Lower limit / Upper limit}}.

Geographical reference

Calculate the centre and the radius (in NM) of a circle that encompasses the whole area. Insert these values in the geographical reference item, formatted as follows:

- the set of coordinates comprises 11 characters rounded up or down to the nearest minute; i.e. Latitude (N/S) in 5 characters; Longitude (E/W) in 6 characters. The radius consists of 3 figures rounded up to the next higher whole Nautical Mile; e.g. 10.2NM shall be indicated as 011.

See also the Note with regard to the risk that the circle/radius does not encompass the whole area, as discussed in the {{Location and radius}} common rules for the NOTAM text generation.
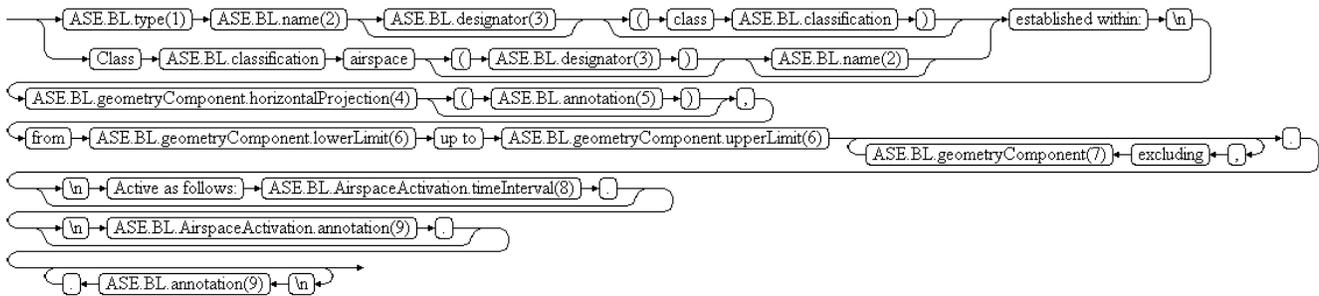
Items B, C and D

Items B and C shall be decoded following the common production rules.

Item D shall be left empty. An eventual schedule shall be decoded in item E.

Item E

The following pattern should be used for automatically generating the E field text from the AIXM data:

EBNF Code

```
template = ("ASE.BL.type(1)" "ASE.BL.name(2)" ["ASE.BL.designator(3)"] ["(" "class" "ASE.BL.classification"
")"] | "Class" "ASE.BL.classification" "airspace" ["(" "ASE.BL.designator(3)" ")"] ["ASE.BL.name(2)")
"established within:" "\n" \n
"ASE.BL.geometryComponent.horizontalProjection(4)" ["(" "ASE.BL.annotation(5)" ")"] "," \n "from" "ASE.BL.
geometryComponent.lowerLimit(6)" "up to" "ASE.BL.geometryComponent.upperLimit(6)"
{"," "excluding" "ASE.BL.geometryComponent(7)"} "." \n
["\n" "Active as follows:" "ASE.BL.AirspaceActivation.timeInterval(8)" "."] \n
["\n" "ASE.BL.AirspaceActivation.annotation(9)" "."]  \n
{"\n" "ASE.BL.annotation(9)" "."}.
```

Reference	Rule

(1)	If ASE.BL.type does not have the value "CLASS", then use this branch. Otherwise use the other branch, which inserts just the airspace classification. The area type shall be included according to the following decoding table: | ASE.BL.type	Text to be inserted in Item E
CTR	"CTR"
ADIZ	"ADIZ"
CTA	"CTA"
UTA	"UTA"
OCA	"OCA"
AWY	"AWY"
SECTOR	"ATS sector"
SECTOR_C	"collapsed ATS sector"
RAS	"regulated ATS airspace"
TMA	"TMA"
ADV*	"Advisory Area"
UDAV	"Upper Advisory Area"
ATZ	"ATZ"
HTZ	"Helicopter Traffic Zone"
FIR	"FIR"
any other	"area"	
(2)	If specified, insert here the ASE.BL.name
(3)	If specified, insert here the ASE.BL.designator
(4)	The GML encoding of the horizontalProjection (gml:Surface) (that is part of a BL.geometryComponent with operation="BASE" or not specified), shall be translated into human readable text, using latitude/longitude values.
(5)	If specified, insert here only the ASE.BL.annotation that has propertyName="geometryComponent", which represents the encoding of the "location note" information. Annotations shall be translated into free text according to the decoding rules for annotations.
(6)	Decode the ASE.BL.geometryComponent.lowerLimit/upperLimit (that is part of a ASE.BL.geometryComponent with operation="BASE" or not specified), including reference and unit of measurement, according to the decoding rules for vertical limits
(7)	If specified as a BL.geometryComponent with operation="SUBTR", insert here the designator and the type of the BL.geometryComponent.contributorAirspace. This requires interpreting the xlink:href value in order to recuperate the relevant data from the contributorAirspace BASELINE. If more than one airspace is excluded from the preceding horizontalProjection, then the word "AND" shall be included before the second, third, etc. exclusion.
(8)	If at least one ASE.BL.activation.AirspaceActivation.timeInterval exists (the Event has an associated schedule), then it shall be inserted here according to the general NOTAM conversion rules for Event schedules. Attention: timeInterval(s) that appear as child of ASE.BL.activation.AirspaceActivation with status=INACTIVE shall not be translated (because this was created for the completeness of the digital data encoding, see rule ER-05)
(9)	Annotations shall be translated into free text according to the decoding rules for annotations.

Items F & G

Items F and G shall be left empty. The vertical limits are part of item E.

Event Update

The eventual update of this type of event shall be encoded following the general rules for {{Event updates or cancellation}}, which provide instructions for all NOTAM fields, except for item E and the condition part of the Q code, in the case of a NOTAM C

If a NOTAM C is produced, then the 4th and 5th letters (the "condition") of the Q code shall be "CN", except for the situation of a "new NOTAM to follow, in which case "XX"shall be used.

The following pattern should be used for automatically generating the E field text from the AIXM data:

template_cancel
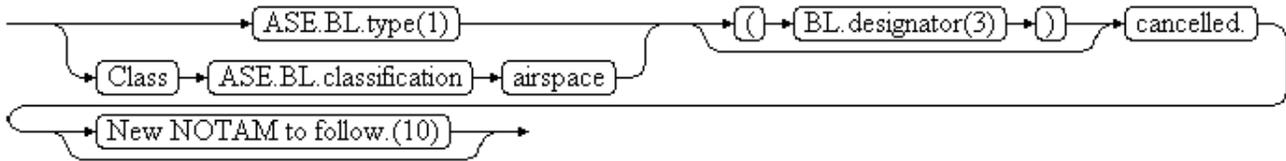
EBNF Code

```
template_cancel = ("ASE.BL.type(1)" | "Class" "ASE.BL.classification" "airspace") ["(" "BL.designator(3)" ")"]
"cancelled." \n
["New NOTAM to follow.(10)"].
```

Reference	Rule
(10)	If the NOTAM will be followed by a new NOTAM concerning the same situation, then the operator shall have the possibility to specify "NEW NOTAM TO FOLLOW" and this text shall be appended at the end of item E of the NOTAM C.
	Note: in this case, the 4th and 5th letters of the Q code shall also be changed into "XX"